

ABSTRACT OF THE DISCLOSURE

A DC/DC converter and a series regulator are connected in parallel between an input terminal and an output terminal.

5 At the time of a heavy load, the DC/DC converter is operated. Although the DC/DC converter has a large current consumption of its own, it has a high power conversion efficiency. Accordingly, since a load current increases at the time of a heavy load, it is effective to use the DC/DC converter whose power conversion efficiency is high, and its current consumption can be neglected since the load current is large. On the other hand, at the time of a light load, the series regulator is operated. Although the series regulator has a small current consumption of its own, it has a low power conversion efficiency. Accordingly, at the 15 time of a light load, even when the series regulator is used, its low power conversion efficiency can be neglected because its current consumption is small. Accordingly, the current consumption of its own can be lowered at the time of a light load, and the power conversion efficiency as a whole can be 20 improved when it is used both at a heavy load and a light load.